

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

June 28, 2006 Meeting

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Donna Silverberg

Notes: Robin Harkless

The following notes are a summary of issues that are intended to point out future actions or issues that may need further discussion at upcoming meetings. These notes are not intended to be the “record” of the meeting, only a reminder for TMT members.

SOR 2006-MT-1

Bruce Measure, NPCC-Montana, began the discussion offering that implementation of the Montana proposal for operations at Libby and Hungry Horse has a very high level of importance in the Montana Governor's Cabinet and NPCC. The difficulty Montana has faced over the last several years, from the state's perspective, is in getting the proposal implemented and understanding why it is not implement-able. The proposal was put forth again this year based on a continuing need to aid Montana's resident fish. He requested that the region consider this proposal in light of the fact that it is a NPCC recommendation and per results of the ISRP review.

Brian Marotz, Montana Fish Wildlife and Game, and Russ Kiefer, IDFG, provided an overview of discussions on the Montana proposal at FPAC on June 27. Areas of agreement amongst the FPAC participants included support for a gradual stabilized flow and the general ‘sentiment’ of the proposal. One proposed solution was a Libby/Arrow swap. Another suggested tool was a translation of the proposal's elevation targets to volumes of water. Areas of disagreement/impasse included:

- Policy vs. technical decision – many salmon managers felt that given the court ordered spill, a policy decision was needed on this issue.
- Biological outcome detection – too small to detect impacts to anadromous fish. Given the unknown, the proposal was viewed by some as misrepresenting the ISRP's analysis that the small difference in flow would have a negligible impact.
- Disagreement on the gap analysis of benefits to resident fish.
- 200 kcfs target flows at McNary are already compromised this year – this proposal would detract even further from that goal.
- There are more Snake River fish migrating in the lower river, so decreasing flows would have an even greater impact this year.
- Reconciliation with court-ordered operations – this poses a procedural challenge.

TMT members/participants offered responses to the Montana proposal:

- Idaho – Technical concerns that the impact to anadromous fish may be greater than the benefit to resident fish, but no technical vote was offered. Needs a policy decision.
- Oregon – Objects to the proposal from a technical perspective.

- Washington – This year requires a policy decision, and technical discussions should continue through FPAC for a longer term solution.
- USFWS – Technical concerns similar to Idaho – requires policy level decision.
- BOR – Makes sense to limit the draft at Hungry Horse from a hydrological standpoint. Needs regional support – elevate to policy level.
- NOAA – The proposal would reduce the likelihood to meet objectives in the BiOp. If there is regional support, however, will not object.
- COE – Defers to NOAA.
- BPA – Needs regional consensus to move forward.
- Nez Perce – Disappointed that SOR has not come to resolution. Will require operational changes; worth pursuing Libby/Arrow swap or other change in hydrosystem strategy to lower impacts to downstream fish.
- CRITFC – Conflicts with our objectives to meet anadromous fish needs. Encourage Montana to pursue with FPAC a means to meet all needs.

Next Steps – Without regional consensus to implement the proposed operation, Montana requested the issue be elevated to IT for policy discussion and decision. A conference call was scheduled for June 29 at 1:00 pm. (**UPDATE:** The issue was discussed during the call and no conclusion was reached. IT will continue discussing the Montana proposal on July 6 during their usual monthly face to face meeting.)

Dworshak Operations

Current conditions: TMT members discussed current temperature conditions, noting that temperatures at Lower Granite had increased and were projected to reach 68° earlier than normal. The COE proposed going to 43° temperature releases from Dworshak, and increasing outflows to 7.2 kcfs as soon as possible. And, when Lower Granite temperatures reach a rolling 24-hour average of 67°, this will trigger the COE to increase Dworshak outflows to full powerhouse. TMT members responded to the proposal:

- Idaho – Since temperatures appear to be moderating slightly, supported the proposal as a reasonable operation that is mindful of all interests.
- Montana – Objected to the proposal; recommended going to full powerhouse immediately.
- Oregon – Defer to the other salmon managers, but prefers a full powerhouse operation and further discussions about a more aggressive trigger for increasing outflows at Dworshak.
- USFWS – Suggested doing additional temperature volume graphs (EPA/CRITFC) to show projections through the summer.
- NOAA – Agreed with stair step approach.
- Nez Perce – Agreed with stair step recommendation, which avoids increasing outflows too soon.
- CRITFC – Agreed with stair step approach.

The COE planned to operate to full powerhouse and have a TMT call on Friday to set triggers for weekend operations. After further contemplation, the COE decided to implement its originally proposed operation (7.2 kcfs), noting the objection from Montana, which elevated the issue to the IT. (**UPDATE:** The IT call resulted in the COE

continuing the operation of 7.2 kcfs at 43° out of Dworshak. The issue was then revisited during a TMT call on Friday, June 30, and outflows were reduced to 4.2 kcfs. A summary of that conference call can be found on the TMT web page.)

CRITFC Presentation: Tom Lorz presented different operating scenarios (2005, Nez Perce proposal) using 2000 temperatures to representative the current season. Tom noted that the models were intended to be read as bookends, not adjusted for adaptive management. The two operations showed a 1° C difference in temperatures, and it was not known specifically what the biological impacts of that difference might be. Tom suggested that the graphs were outdated and suggested re-running the models with current information.

SOR NPT 2006-1: Dave Statler and Greg Haller, Nez Perce, provided an overview of the Nez Perce proposal for Dworshak operations through the summer. After much discussion, TMT did not support the recommendation as a proscriptive tool, but acknowledged that there was support for the general concepts in the framework of the proposal. The Nez Perce representatives clarified that their intention with the recommendation was similar to the group's interest, and will now need to decide if/how to re-write the recommendation.

2006 C-1, C-2 Treaty Fishery

Tom Lorz, CRITFC, presented two SOR's for tribal treaty fishing operations, one that had already been completed before today's meeting. As a process point, TMT supported the COE and CRITFC coordinating on treaty fishing SOR's and then notifying TMT of the outcome of those discussions.

ESP/HYSSR Models

Graphs were provided of ESP volumes and forecasts. All projects were projected to refill. A suggestion was made to include on the graphs which forecasts are being used in the models.

Operations Review

Reservoirs: Libby was at 2.7' from full; spill had ended. A graph showing Libby flows April-June was shared. A question was asked about why more water was not released in April-early May from Libby. The COE responded that the water was shaped into later May since the project was below end of April flood control, and inflows made a sharp increase to above 100% of normal in late May, remaining high in June. Increased spill caused impacts to fish, including gas bubble trauma to bull trout. No mortalities were observed. Brian Marotz, Montana, will provide a summary of this information to TMT when it is available, along with the COE's 'after action' report.

Dworshak was within a foot from full and operating 7.2 kcfs out. Hungry Horse was at elevation 3558' and expected to be full the first week of July, 20' from full end of August. Grand Coulee was at 1287' and expected to fill by July 4/5. Flows at Priest Rapids were at 200 kcfs. Upper Snake flow augmentation began this week. The season

average flows were as follows: Lower Granite April 3-June 20, 125 kcfs; McNary April 10-June 30, 325 kcfs; and Priest Rapids April 10-June 30, 192 kcfs.

Given a high number of subyearlings, a suggestion was made to increase John Day spill to a summer operation, 24 hours at 30%, rather than wait for the usual July 1 start. The action agencies agreed to check on their capacity to implement the request to go to summer operations at John Day as soon as possible.

Fish: The subyearling migration is underway. Adult numbers look similar to last year.

Power: Robyn Mackay was welcomed as the new TMT representative for BPA. She suggested that everyone review the emergency protocols and check in at the next regularly scheduled TMT meeting to update them for summer. Units 1-4 at John Day will be back up no later than September 8, possibly as early as late July.

Water quality: Low spill caps have been set in the Lower Snake. Many temperature exceedances have occurred. The caps are set at 65 at Bonneville, 18 at Little Goose and 15 at Lower Monumental.

TMT Meeting Schedule: Wednesday, July 12, 9am-noon

Agenda Items include:

- Dworshak Operations
- Libby/Hungry Horse SOR Update
- Marine Mammal Permitting Process Update – Oregon and Washington
- Sturgeon Operations – USFWS
- Emergency Protocols
- Operations Review

Technical Management Team Meeting Notes

June 28, 2006

1. Greetings and Introductions.

Today's Technical Management Team meeting was chaired by Cathy Hlebechuk and facilitated by Donna Silverberg. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at this meeting. Anyone with questions or comments about these notes should contact Hlebechuk at 503-808-3940.

2. Libby and Hungry Horse SOR.

Bruce Measure, Montana Council Member, said this issue has been discussed in the region since 1996. He said the Governor of Montana is very concerned about the ability to manage fish in the Kootenai River in a productive manner, and the implementation of this SOR is of the highest importance to the State of Montana. We are having a very difficult time understanding why it has been so difficult to implement, he said, give the fact that this operation is mandated in the Council's Mainstem Recommendations. It was not intended in any way to be a poke in the eye to any of the other salmon managers – we in no way were editorializing against anyone else in the region, Measure said. We would like to move forward with this, he said – this year, because of the operations at Libby, we again have fish that are in bad shape.

The Council should be accorded some deference, Measure said – to ignore the Council, and the science behind this recommendation, is incongruous. At the TMT, a single member can derail such a recommendation. The ISRP has proposed a set of scientific recommendations to test the effects of our proposed operation on our listed fish. Unless this requested operation is implemented, it is not possible to do so. Again, this is a very high priority for our governor, and we are going to keep pushing for this until it is implemented, Measure said.

Brian Marotz said this operation was discussed at yesterday's FPAC meeting, which he and other Montana representatives attended. Our hope was to develop an SOR with everyone's name on it, he said, but that wasn't possible, primarily because we were unable to specify how long the summer flows would continue. The SOR we developed did have a few things in common; I think people understand why we want these operations at Libby and Hungry Horse, but a few people thought it widened the gap we were experiencing for anadromous fish.

One thing we did agree upon yesterday is the need to meet the needs of both resident and anadromous fish, said Russ Kiefer. We also recognized Montana's desire to maintain higher flows in September to keep the Kootenai productive. We explored ways to meet Montana's needs without impacting anadromous fish – for example, by supporting Montana's desire to better balance the winter flood control draft to better balance productivity in the river vs. productivity in the reservoir. We also talked about a Libby-Arrow swap as a way to provide better conditions for resident fish in Montana without negatively impacting anadromous fish. In short, we made progress yesterday, and encourage Montana to keep sending representatives to FPAC. However, given the short time-frame, we were unable to reach consensus this year, Kiefer said.

We also discussed translating the elevation targets into a volume, and creating a sliding scale, Marotz said. Does Idaho oppose this SOR? Measure asked. No – we simply discussed the technical aspects of the question at yesterday's meeting, Kiefer replied. What is Idaho's position on the Montana

SOR? Measure asked. We believe it is a policy decision, and we support it at the policy level, Kiefer replied.

This is hardly a brand-new issue, said Jim Litchfield; we have been working on it in one form or another since 1996. Every year, we try to make this SOR better, he said. I think everyone knows the specifications of the operations we're requesting; this is very important to the state. We can't understand why we can't seem to get to yes, he said – all of the issues that were discussed yesterday have been discussed for years. Marotz went through some of the rationales articulated in opposition to the Montana SOR at yesterday's FPAC meeting, including the contentions that there is no proof that Montana's requested operation will be beneficial to resident fish in Montana, or that the more traditional operation of the Montana reservoirs will harm them.

The group devoted a lengthy discussion to this topic. Tom Lorz said the tribes are very concerned about decreasing the gap for Snake River fall chinook; any reduction in lower river flow will have a significant biological impact on that species. There is also the question of how Montana's requested operation could be reconciled with the court-ordered operation of this system, and whether the TMT is the right body to consider changes to the court-ordered operation, Lorz said. What is the Corps' current estimate for summer flows at McNary? Lorz asked. According to the most recent ESP/HYSSR run, 203 Kcfs in July, 159 in the first half of August and 151 Kcfs in the last part of August, Julie Ammann replied. And if the Montana SOR is implemented, those estimates would drop by 6-7 Kcfs? Lorz asked. Correct, Hlebechuk replied.

Marotz observed that the majority of the summer migrants are moving earlier, in July, and there are fewer fish outmigrating in August. This is what would happen under a natural hydrograph, he said, so it may make sense to begin to taper off flow during August to save some water for use in September. There are still substantial numbers of fish outmigrating during August, however, Rich Domingue observed. The group discussed the ability, given the current state of the science, of researchers to accurately measure the biological impacts of this relatively small reduction in lower river flows; there was general agreement that it is not possible to accurately quantify the negative impacts of Montana's proposed operation on anadromous fish. Dave Statler observed that the Clearwater component of the Snake River fall chinook has a later migration timing than the run at large and warned against making any generalizations about the timing of the Snake River fall chinook run.

Kiefer reiterated that the salmon managers are concerned because they know that reducing flows for migrating fish through reservoirs is a bad thing. It is true that given the variability of all of the factors at work, it will not be possible to accurately quantify the biological impacts of implementing Montana's requested operation. Our purpose here is to discuss adaptive management options, he said; one example of that is our support of the elimination of the double peak in

outflow from the Montana reservoirs, because of the negative impacts of such an operation on resident fish in Montana. However, as a professional biologist, I believe that the negative impacts to anadromous fish resulting from Montana's requested operation would be greater than the biological benefits that would result for resident fish in Montana, Kiefer said. We believe this is a policy call.

So if I understand correctly, it is FPAC's position that, rather than asking the TMT to develop an operational recommendation, that it would make more sense to elevate this issue to IT, Measure said. If so, I would request that the IT meeting be held tomorrow, rather than next week. The next scheduled IT meeting will be held July 6. That will be pushing the envelope somewhat, in terms of the timing, Litchfield said; we're running out of time. Before this is elevated, however, I would like to know where everyone stands, he said.

Kiefer reiterated that, in Idaho's belief, this is a policy question that should be elevated to IT. David Wills said the Fish and Wildlife Service shares the technical concerns articulated by Kiefer, and agrees that this is a policy issue. Tony Norris said that, with respect to Hungry Horse, Reclamation agrees that, from a hydrological perspective, it would make sense to extend the draft into September, but given the remand process, they cannot support the SOR at this time. We agree that this is a policy call. It would be better for spring flows, he said. In response to a question from Wills, Norris clarified that it is not Reclamation's position that implementing the Montana SOR would not be harmful to anadromous fish. It is not up to Reclamation to determine the operational priorities for anadromous fish, he said.

Domingue said NOAA Fisheries stands behind the BiOps that are already in place; this SOR, if implemented, would compromise our ability to implement some of the operations in those BiOps. However, if Montana can obtain substantial regional support for their requested operation, NOAA Fisheries will not object, Domingue said. Hlebechuk said the Corps, too, will defer to the region. Rick Kruger said Oregon objects to the SOR on the technical grounds that have already been expressed.

Statler said the Nez Perce Tribe is disappointed that this SOR has not come to fruition, and would support additional, facilitated dialogue on this issue. Any solutions to this issue will require operational changes, he said; the swap, or some sort of reregulation, should be pursued so we can move forward on this issue. Lorz said that, in CRITFC's view, the SOR would widen the gap for anadromous fish, and encouraged the pursuit of a flow-neutral solution. Robin MacKay said BPA encourages regional consensus on this issue. Cindy LeFleur said that, in Washington's view, this is a policy decision, not a technical decision. Kiefer added that he has been directed by the policy representatives in Idaho to abstain from voting on this issue at today's meeting.

Ultimately, Litchfield said Montana would like to pursue an IT conference call on this issue for tomorrow, given the short time-frame available to start this operation, and the potential need to elevate this issue beyond IT. I will see whether that would be possible, Domingue said.

3. Dworshak SOR.

Statler said the discussion at yesterday's FPAC meeting identified some immediate operational needs, as well as the seasonal SOR. Those immediate operational needs include the current water temperature situation at Lower Granite. Kiefer thanked the Corps for alerting the region to the water temperature situation in the Lower Granite tailrace – it is very helpful to recognize these situations before they become serious problems, he said.

Jim Adams drew the group's attention to a graph showing the current swift rise in water temperatures at Lower Granite; according to our modeling, if this increase continues, we will hit 68 degrees by this Saturday, he said. Under the Nez Perce SOR, we would not begin any temperature control operations from Dworshak until July 5, nearly a week later, Adams said – that's the key issue facing us today. He added that, currently, Dworshak is releasing about 5 Kcfs of 48 degree water. Domingue said that, at yesterday's FPAC meeting, there was general agreement that the Corps should reduce the Dworshak outflow temperature to 43 degrees F. In response to a question, Wills said that, for a short-term operation such as this one, personnel at Dworshak National Fish Hatchery have said that 43 degrees is the lowest temperature they want to see at this point in the season.

How would this impact the Nez Perce SOR? Silverberg asked. The SOR requests that we refill Dworshak as soon as possible, Statler replied; it is not quite full yet. It also calls for passing inflow at 45 degrees outflow temperature once the reservoir is full; Dworshak is currently at elevation 1599.1 feet, so it is not quite full. It wouldn't be a major problem if we reduce the outflow temperature to 43 degrees, he said. In response to a question, Hlebechuk said Dworshak is currently drafting slightly, with inflows of about 5 Kcfs; the Corps intends to touch elevation 1600 by the end of June.

If we increase the discharge of 43-degree water to 10 Kcfs, will that impact water temperatures at Lower Granite? Scott Bettin asked. Yes, it will lower temperatures at Lower Granite, but it takes about 5 days of travel time before those impacts are seen at Lower Granite, Adams replied.

Kiefer said the salmon managers request that Dworshak outflow immediately be increased to 7.2 Kcfs at 43 degrees. Domingue modified that somewhat, saying NMFS would advocate that there be a trigger – if temperatures in the Lower Granite tailrace reach 67 degrees F. for a 24-hour period, then Dworshak discharge should immediately be increased to full powerhouse

capacity at 43 degrees F. What would be the elevational impact to the reservoir if we move the trigger point up to this week? Greg Haller asked. I think we're fine with that concept, but it would be helpful to know what the elevation impact will be over Fourth of July weekend. If inflows hold steady, the elevation would drop by about half a foot per day, or a couple of feet over the weekend, if discharge is increased to full powerhouse capacity, Hlebechuk replied.

After a few minutes of additional discussion, it was recommended that the Corps immediately increase Dworshak discharge to 7.2 Kcfs, and reduce the outflow temperature to 43 degrees F. Adams noted that, although air temperatures are moderating somewhat in the Lower Granite area, solar radiation is expected to continue to cause water temperatures to rise. The Nez Perce would agree to such a stairstepped approach, given the unprecedented rise in water temperatures we're seeing at this point in the season, Statler said.

Litchfield said Montana disagrees with this proposed operation – I think we're being too timid, he said. I think we should go to full powerhouse capacity right away, at 43 degrees F., Litchfield said. Statler replied that such an operation would result in a much more significant draft of Dworshak reservoir over the Fourth of July weekend, and would also put more cold water into the Clearwater River, negatively impacting the growth of the fall chinook juveniles rearing in the Clearwater.

In response to a question, Hlebechuk said that, in the interest of balance, and of recreation on Dworshak Reservoir over the holiday weekend, the Corps would prefer to stick with the recommendation of increasing Dworshak discharge to 7.2 Kcfs. Litchfield said that, in his view, this is not a rational choice, if you're talking about exposing endangered species to 68-degree water. Recreation isn't the only issue – we're also talking about different life-history needs, and about saving water for use in August, Statler replied. I would add that saving cool water for the adult returns in August is also a concern, Kiefer said. I don't disagree with Montana's position, but it's question of balance, Domingue added. We share the views you've expressed, said Haller, but even the increase to 7.2 Kcfs represents a significant departure from our original position. Judy Danielson said Idaho would certainly prefer to see Dworshak remain full over the holiday weekend, but is also concerned about fish.

Karl Kanbergs said there may still be a generation restriction in force because of the scheduled line maintenance. I believe that restriction ends this Friday, said MacKay. Litchfield observed that it had been made abundantly clear that the maintenance personnel could get off the line with 6 hours notice, if fish operations become a priority.

After a few minutes of additional discussion, it was agreed to increase Dworshak discharge to 7.2 Kcfs, with a release temperature of 43 degrees F., as soon as possible; it was further agreed that the question of the most appropriate volume of Dworshak discharge will be discussed at tomorrow's IT call. In

response to a question, Ammann said it will be possible to implement the recommended operation by later today.

The group agreed to take a caucus break. When the TMT reconvened, Scott Bettin said there appears to be enough room on the transmission line to accommodate full powerhouse generation at Dworshak, although it may be necessary to back off Dworshak slightly during some hours, on an as-needed basis.

Haller said the Fish and Wildlife Service, NMFS, CRITFC and the Nez Perce Tribe had discussed the requested operation, and had also spoken with Roger Fuhrman at Idaho Power. Based on his input, which included the fact that the warmer Brownlee discharge will be decreasing over the Fourth of July weekend, Haller said the salmon managers at the caucus continue to recommend that 7.2 Kcfs at 43 degrees be released from Dworshak, beginning immediately. Kiefer said he checked with Idaho policy personnel, who expressed the preference to provide 7.2 Kcfs at 43 degrees. We should discuss the appropriate triggers that would push discharge to 10 Kcfs, he said, but at this time, we would prefer to stick with 7.2 Kcfs at 43 degrees. It might make sense to try to agree on a more aggressive trigger than a water temperature of 67 degrees for 24 hours in the Lower Granite tailwater, he said. Kruger said he would prefer to go to 10 Kcfs Dworshak discharge now, but is willing to defer to those who are advocating 7.2 Kcfs for the time being. Litchfield said he still doesn't see persuasive evidence that it makes sense to begin the Dworshak temperature control operation so cautiously; we're behind the 8-ball with the temperature situation already, and this kind of stepwise approach has never worked in the past, he said.

Statler noted that, last year on this date, the water temperature in the Lower Granite tailrace was only half a degree cooler than it is this year. We addressed it by releasing 7 Kcfs from Dworshak through July 10, at which point we increased outflow to full powerhouse discharge, and managed the water temperature at Lower Granite very well, Statler said. We did not immediately increase Dworshak discharge to 14 Kcfs, and it would be a mischaracterization to say that this is a significant departure from the temperature control operations that have been implemented in recent years. Haller added that it would also be a mischaracterization to say that this operation is primarily intended to benefit the recreational users of Dworshak reservoir over the holiday weekend – while that is one consideration, the overall intent of this operation is to balance the needs of all of the life-histories that benefit from Dworshak temperature control operations, as best we can, he said. I would only observe that last year isn't this year, and what concerns me is the rapid increase in temperature we've seen in recent days, Litchfield said.

Lorz provided a presentation on recent water temperature (RBM-10) modeling work by Kyle Dittmer and Ben Cope; this presentation is available via

hot-link from today's agenda on the TMT homepage. Lorz noted that Dittmer had run the model using weather years 1975, 1985, 1990 and 1991, all normal to cool weather years. He also chose 2000 Dworshak and Brownlee water temperatures as most representative of the conditions that will likely be encountered in 2006. Dittmer and Cope then modeled the 2005 actual operation and the proposed 2006 Nez Perce Tribe operation.

Lorz noted that the Hells Canyon discharges assumed in these model runs is significantly lower than the actual discharges so far in 2006; that's the main reason for the discrepancies between the model results and the actual temperatures seen to date, he said.

Lorz said the take-home message from this modeling exercise is that the operation requested in the Nez Perce Dworshak SOR is predicted to result in temperature excursions of about 1 degree C above the 2005 actual operation. It is possible that the CEQUAL model may produce more accurate results, said Lorz; Kyle will be back next week, and will be updating these model runs to incorporate more recent actual conditions.

Silverberg asked where the TMT now stands on the Nez Perce Dworshak SOR. Hlebechuk said that, upon further consideration, the Corps plans to implement the temperature control operation at Dworshak in a stairstep fashion, and will be increasing Dworshak discharge to 7.2 Kcfs of 43-degree water later today. She suggested that the TMT revisit this operation during a conference call this Friday, June 30. During the call on Friday, the TMT can also discuss the question of the most appropriate trigger to increase Dworshak discharge, Silverberg suggested – is an average Lower Granite tailwater temperature of 67 degrees F for 24 hours conservative enough, or would a lower temperature be more appropriate?

Litchfield said Montana does not agree with the Corps' proposed operation, noting that, in his opinion, it is simply not aggressive enough. Litchfield advocated increasing Dworshak discharge to full powerhouse capacity by later today. Does anyone besides Montana object to the Corps' proposed operation? Silverberg asked. Oregon doesn't support it, but we aren't going to elevate it to IT, Kruger replied. Will said the Fish and Wildlife Service agrees with Oregon's position. NMFS, Idaho, the Nez Perce Tribe and CRITFC said they do not object to the Corps' proposal to increase Dworshak discharge to 7.2 Kcfs later today.

Litchfield said Montana will elevate this issue to IT; it simply isn't the right operation for fish, given the steepness of the temperature curve at this point in the season. he said he will work with Silverberg to frame the question for the IT later today. In the interim, Hlebechuk reiterated that the Corps plans to increase Dworshak discharge to 7.2 Kcfs of 43-degree water later this afternoon. NOAA Fisheries' opinion at tomorrow's conference call will be very important, Litchfield

noted for the record. It was agreed that the TMT conference call will take place as scheduled on Friday, June 30.

What does the Nez Perce Tribe want to do with respect to its SOR? Silverberg asked. We recognized that the operation could change based on changes in actual conditions, Statler replied; it is now very close to July 1, when implementation was requested to begin, and the operation outlined in the SOR is still what the tribe would prefer to see guide the action agencies' operations. We're willing to accept it as a guide, with the understanding that actual operations will be dictated by actual conditions, Hlebechuk replied.

Kruger said Oregon objects to the Nez Perce SOR based on its impacts to fish and funding considerations tied to the tribal enforcement program. As a prescriptive measure, I would vote against this SOR, said Wills; however, we would be willing to support it as a general guide. Oregon would agree with that, Kruger said – there are simply too many criteria that come into play when making real-time decisions to accept a prescriptive approach. Oregon does agree with the concept of saving as much water as possible for use in August, Kruger added.

LeFleur said Washington agrees with the Oregon and USFWS position. Other TMT participants said they are uncomfortable with the fee structure referenced at the end of the SOR's justification section. It sounds, then, as though the majority of the TMT does not support implementation of the Nez Perce SOR, except as a general framework to guide operations, Statler said.

After a few minutes of additional discussion, MacKay said BPA supports the use of in-season management tools to make decisions about operational issues such as Dworshak water temperature control. We're concerned that, if this SOR was adopted, we would be committing the TMT to a season-long operation that Oregon, for one, does not support, Kruger said. It sounds, then, as though this SOR, as written, is not supported by TMT, although there is support for some of the principals it contains, Silverberg observed. No objections were made to this statement.

4. Marine Mammal Permitting Process Update.

This topic was deferred to a future TMT agenda.

5. Chum Spawning Population Estimates.

This topic was deferred to a future TMT agenda.

6. Treaty Fishing SORs.

Lorz said CRITFC had submitted two summer treaty fishery SORs to date, one on June 15 (already implemented), and a second one covering fisheries on June 27-29 and July 5-7. As always, he said, the tribes are asking the action agencies to maintain full, stable pools at the Zone 6 projects. It was noted that, in all likelihood, there will be additional requests covering weekly fisheries through the end of July.

Traditionally the Corps operates Bonneville pool in a 1.5-foot operating range as a hard constraint during the treaty fisheries, and in a 1-foot range as a soft constraint, Hlebechuk said. The Dalles and John Day are operated in a 3 foot range as they are needed for generation flexibility, Hlebechuk said. The Bonneville, The Dalles and John Day operations were discussed between Colonel Mogren (COE) and Ted Strong (CRITFC) in 1998 and transmitted in a letter from the Corps to CRITFC that same year.

Given the fact that, because of the timing of the meetings, it isn't always possible to discuss the treaty fishery SORs at TMT before they have to be implemented, is it fair to say that there are no TMT objections to their implementation? she asked. No objections were raised at today's TMT meeting.

7. ESP HYSSR.

Julie Ammann briefly reviewed the most recent ESP/HYSSR model results, available via hot-link from today's agenda on the TMT homepage. She noted that it appears that 11 of the FCRPS storage projects will refill in 2006. The presentation also included the following table of period average flows, based on these model results:

Period Average Flows (in Kcfs)

Project	June 1-30	July 1-31	Aug 1-15	Aug 16-31	Sept 1-30
LIB	33.6	20.7	20.2	19.4	9.8
HH	7.4	6	5.9	5.3	1.7
GCL	165	142	118	113	87
PRD	194	154	124	118	92
DWR	4.7	10.1	10.1	10.1	4.3
BRN	24	16	12	13	13
LWG	90	44	31	31	25
MCN	312	203	159	151	117
TDA	315	206	162	155	122
BON	317	209	165	157	124

It looks as though there is still significant uncertainty about Libby this year, Litchfield noted. I would say that is correct, Ammann replied.

7. 2006 Sturgeon Operations.

It was agreed to defer this topic to a future TMT agenda.

8. Operations Review.

Hlebechuk said Libby filled on June 17 this year; project outflow peaked at 55 Kcfs. Currently the project is drafting slowly; it was 2.7 feet from full as of midnight last night. Spill stopped yesterday at Libby, and the project is now releasing full powerhouse capacity. The intent is to operate Libby in the top three feet for now.

The TMT briefly revisited the 2006 Libby operation to date, discussing whether or not it might have been possible to avoid spill at the project through a different suite of operations. Merotz described the biological effects of the spill in 2006 on the river environment below Libby, noting that many signs of gas bubble trauma have been seen in bull trout. He said he will provide a written summary of this information for discussion at a future TMT meeting.

The Corps said Dworshak is currently operating in the top half-foot of its operating range. Reclamation said Hungry Horse is at elevation 3558, two feet from full. The project will fill during the first week of July, and is currently releasing 4 Kcfs. Once the project fills, Hungry Horse discharge will be increased to 5.3 Kcfs, the flat flow needed to achieve elevation 3540 by August 31.

Grand Coulee is currently at elevation 1287, three feet from full; the project will fill by July 4 or early on July 5. The current flow at Priest Rapids is 210 Kcfs. Reclamation noted that Upper Snake flow augmentation began earlier this week.

It was noted that the spring seasonal average flow was 125 Kcfs (April 3-June 20) at Lower Granite, 325 Kcfs at McNary (through June 30) and 193 Kcfs at Priest Rapids (through June 30). Reclamation added that the only reason Hungry Horse did not spill in 2006 was the pre-drafting that was done in preparation for the planned line outage.

With respect to spill at John Day, Lorz said CRITFC is requesting that the summer spill operation at that project – 30 percent of total river flow 24 hours a day – begin today, rather than June 30. NMFS, Oregon, the Fish and Wildlife Service and Idaho agreed with this recommendation. MacKay replied that, while Bonneville would like to be collaborative and flexible, because of the remand, this

is a difficult year to be making last-minute changes to the court-ordered operation. She said BPA cannot agree to this change at today's meeting.

On the fish front, Domingue updated the TMT on the current passage situation, noting that there are still significant numbers of both juvenile and adult migrants moving through the system. On the water quality front, Adams provided a brief overview of recent exceedences.

9. Next TMT Meeting Date.

The next meeting of the Technical Management Team was set for Wednesday, July 12. Meeting summary prepared by Jeff Kuechle, BPA contractor.

Technical Management Team Meeting Participants
June 28, 2006

Name	Affiliation
Donna Silverberg	Facilitation Team
Dave Statler	NPT
Russ Kiefer	IDFG
Robin Harkless	Facilitation Team
Rich Domingue	NMFS
Tony Norris	USBR
David Wills	USFWS
Robin MacKay	BPA
Julie Ammann	COE
Bruce Measure	Montana
Rick Kruger	Oregon
Tom Lorz	CRITFC
Cathy Hlebechuk	COE
Jim Litchfield	Montana
Brian Marotz	Montana
Bern Klatt	COE
Jim Adams	COE
Kevin Nordt	Mid-Cs

Tim Heizenrater	PPM
Scott Bettin	BPA
Russ George	WMCI
Randy Wortmann	COE
Dan Spear	BPA
Mark Bagdovitz	USFWS
Shane Scott	
Barry Espensen	CBB
Greg Haller	NPT
Greg Parker	COE
David Benner	FPC
Judy Danielson	Idaho
Craig Sprankle	Reclamation
Bruce MacKay	Consultant
Tom Le	PSE
Cindy LeFleur	WDFW